

31th session of the WCRP JSC/CAS, Working Group on Numerical Experimentation (WGNE-31) CSIR, Pretoria, South Africa, 26-29 Mar 2016



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JSC/CAS Working Group on Numerical Experimentation (WGNE)

WGNE is supporting numerical experimentation research activities of the

- WMO/ICSU/IOC-UNESCO World Climate Research Programme (WCRP)
- WMO World Weather Research Programme (WWRP)
- WMO Global Atmosphere Watch Programme (GAW) as well as research links to operational weather and climate prediction.
- WGNE Madden Julian Oscillation (MJO) Task Force (TF)

The Working Group on Numerical Experimentation (WGNE), jointly established by the [WCRP Joint Scientific Committee \(JSC\)](#) and the WMO Commission for Atmospheric Sciences (CAS), which is responsible for [WWRP](#) and [GAW](#), has the responsibility of fostering the development of atmospheric circulation models for use in weather, climate, water and environmental prediction on all time scales and diagnosing and resolving shortcomings (WMO/TD 121). WCRP-JSC/CAS WGNE promotes co-ordinated numerical experimentation for validating model results, observed atmospheric properties, exploring the natural and forced variability and predictability of the atmosphere, (e.g. the Atmospheric Model Intercomparison Project, [AMIP](#)), as well as studies aimed at refining numerical techniques, and the formulation of atmospheric physics processes. WGNE also monitors the advances in data assimilation and analysis methods and is the focal point in the WCRP for encouraging and reviewing the reanalysis projects carried out at various centres with fixed state-of-the-art assimilation systems providing a multi-year homogenous data set for a range of atmospheric and climate diagnostic studies.

Activities

- [WGNE Exercise: Evaluating Aerosols Impacts on Numerical Weather Prediction](#)
- [The Drag Project](#)
- The MJO Task Force

- Panel members primarily from NWP centers around the globe.
- GLASS Co-chairs Ex-Officio Members of WGNE panel.

GLASS Projects Most Relevant to WGNE

- **PILDAS:** Project for the Intercomparison of Land Data Assimilation Systems.
- **PALS-PLUMBER:** Land model benchmarking.
- **DICE:** Land-atmosphere interaction, with links to GEWEX Global Atmosphere System Studies (GASS).
- **LoCo:** Local Coupled Land-Atmospheric Modelling.

Data assimilation and process-level improvements to model physical parameterizations, e.g. WGNE Drag Project – GLASS could examine surface drag as part of PALS-PLUMBER or other GLASS projects.